



# MODIS SCIENCE TEAM MEETING

MARCH 22-24, 2005

MEETING OVERVIEW:  
PLANS AND OBJECTIVES

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MODIS Science Team Leader





## WELCOME:

- OVER 90 TEAM MEMBERS AND COLLEAGUES
- NEARLY 300 REGISTERED FOR MEETING

## STATUS

- OVERALL MODIS, ETC., CONTINUE TO GO WELL
- INSTRUMENTS DOING O.K.
- USE OF MODIS FOR SCIENCE AND APPLICATIONS IS GROWING
- NPP/NPOESS VIIRS PROGRESSING (J. Privette will give brief report)



## THIS MEETING:

- LOTS OF POSTERS— LOTS OF GOOD RESULTS
- INFORMATIVE PLENARY SESSIONS—MODIS THRUSTS
- MUCH TO PLAN FOR THE FUTURE ASSUMING (HOPEFULLY) APPROVAL FOR TERRA EXTENSION (J. Ranson will report)



## MODIS INSTRUMENT AND PROCESSING SYSTEMS SUMMARY



- Terra MODIS doing O.K. after 5 years
  - meeting calibration spec's (2% reflectance, 5 % radiance) and meeting goals for geolocation (50 m rms)
  - ocean color requirements exacting and processing of Terra MODIS ocean color is tbd
  - overall some tentative signs of aging, but no reason to think instrument can't go to the end of the decade
- Aqua MODIS doing fine after almost 3 years including ocean color observations coming into line via OCDPS
- Data processing systems (GSFC DAAC, MODAPS, OCDPS) have performed very well over a period of changing conditions; data delivered, processed and archived (3 DAAC's—over a petabyte of data at GSFC DAAC and LP DAAC); OCDPS now does ocean color processing
  - Reprocessing done for Collection 4; starting Collection 5





# OTHER MODIS INDICES OF ACCOMPLISHMENT



## •PUBLICATION STATISTICS

-Overall in MODIS/MODARCH Data base: Total of 1462 publications from 1990 to the present.

-Fall AGU ‘index”: 04-186, 03-170, 02-82, 01-82, 00-52, 99-16, 98-12, 97-7, 96-5, 95-8



-Web of Science ‘index”: 05-47, 04-181, 03-136, 02-83, 01-49, 00-46, 99-46, 98-29, 97-26, 96-17, 95-9, 94-11, 93-3, 92-8, 91-6, 90-0, 89-2

Total= 722 refereed publications (>6700 citations)  
(as of 3/21/05 ) and growing



-Google Scholar (“NASA MODIS Instrument”): 1790 “hits”



-Google (“NASA MODIS Instrument”): 22,700 “hits”

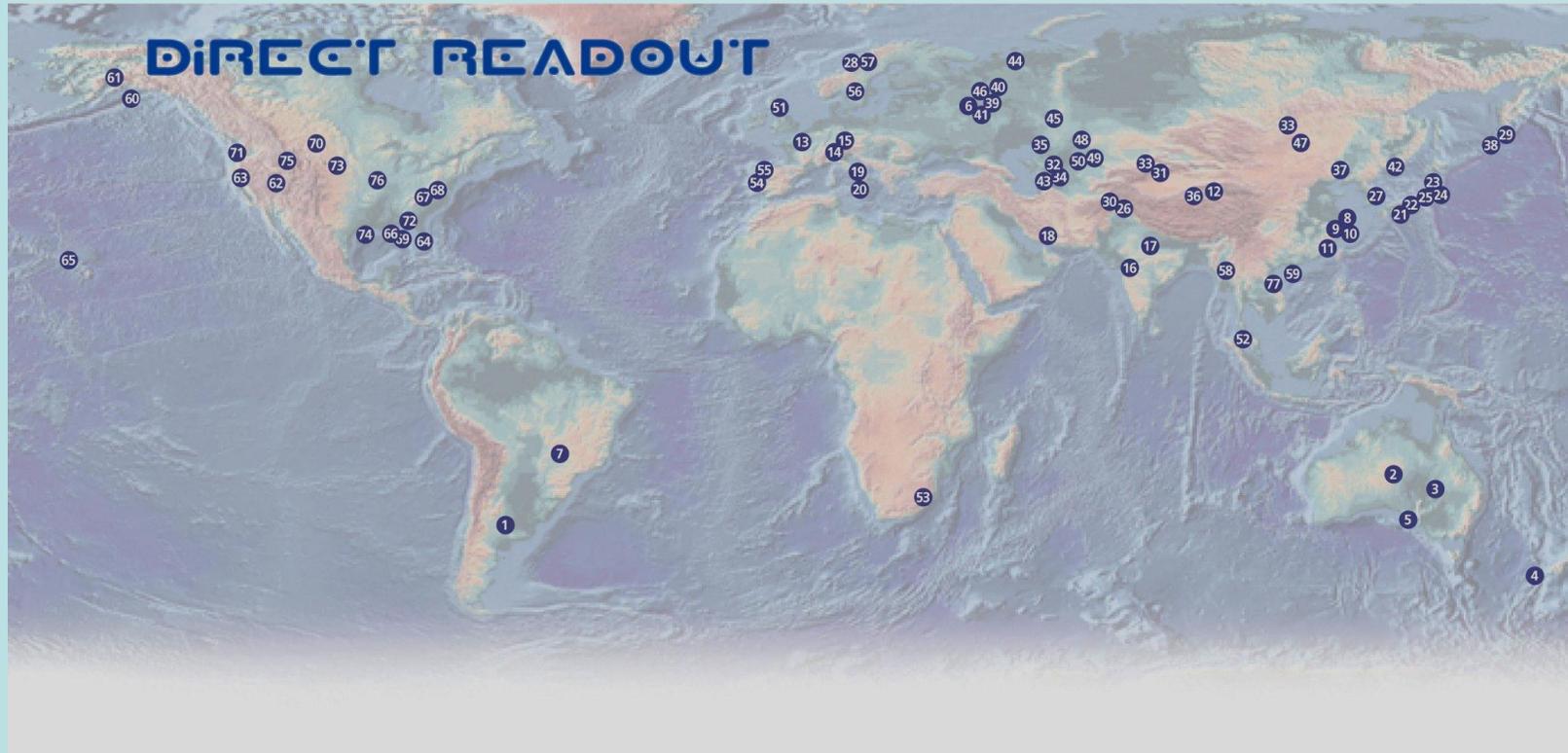
-Google (“NASA MODIS”): 421,000 “hits”

-Google (“NASA Hubble”):778,000 “hits”





# EOS Direct Readout Sites



- Over 100 Ingest sites around the world for Terra/Aqua DB downlink
- Over 800 Users of data extending from ~100 ingest sites
- List is located on the Direct Readout Portal

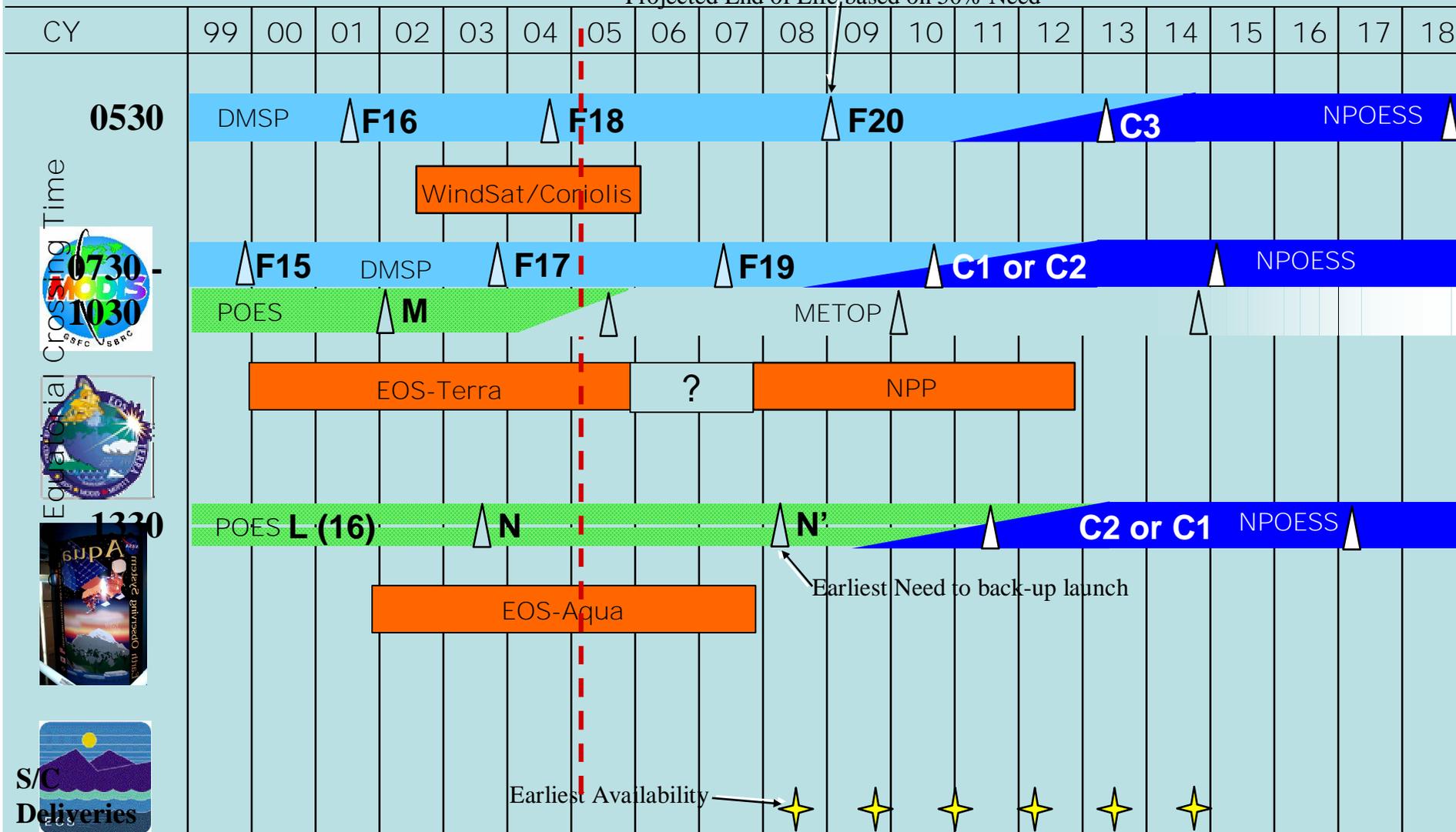


# Satellite Transition Schedule

(9 March 2001—ref: R. Murphy, George Mason/IPO)  
*Slopes indicate 10-90% need (NPOESS GAP 5b)*



Projected End of Life, based on 50% Need



Equatorial Crossing Time





## OVERALL MODIS SCIENCE TEAM THRUSTS



- Support and collaborate with the relevant parts of the Earth Observing System Data and Information Service (EOSDIS) or other entities pursuing the provision and use of MODIS data products to the general science and applications communities or the public at-large so as to **improve access to and use of MODIS data products**

- Pursue the programmatically the necessary goal of **providing climate-data-record quality data sets of MODIS products**. The characteristics or requirements for these data sets will be those obtained from the science community via procedures approved, prescribed or represented by NASA Headquarters Office of Earth Science program management



- Interact with the modeling community(ies) to **facilitate and expedite the assimilation of MODIS data products into such Earth system and Earth system component models**. These models can include everything from global earth systems processes and trends to regional and local scale models simulations as well as applications specific to resource management and decision models support needs



- Pursue interdisciplinary efforts including the use of MODIS products**; i.e. where appropriate ensure that MODIS land products can be employed effectively by atmospheric efforts, MODIS atmosphere products can be used by land and oceans efforts, etc.



- Educate and train students** to appreciate and be able to use remote-sensing (e.g., MODIS) data for doing Earth science and applications





# AGENDA



## March 22

8:00 A.M. Registration

8:30 A.M. Welcome/Meeting Goals/Overview---V. Salomonson

9:00 A.M. The NASA Headquarters Perspective—  
P. Bontempi, et al.



9:30 A.M. Terra Status—J. Ranson, Terra Project Scientist

9:45 A.M. Aqua Status—Steve Platnick,  
Aqua Deputy Project Scientist



10:00 A.M. Break

10:30 A.M. Poster Session



12:00 P.M. Lunch (bag lunches will be available) and Posters (continued)





# AGENDA (CONTINUED)



## March 22 (continued)

1:00 P.M. Progress in Data Access/Delivery Presentations

—M. Maiden/NASA HQ—Chairperson

-Robin Pfister/GSFC-EOSDIS Clearing HOuse (ECHO) activities

-Bill Ridgeway/SSAI —MODIS Atmospheric Data Distribution System (ADDS)

-David Herring/K. Ward/GSFC— Update on the NASA Earth Observations (NEO) Gateway

-M. Bombacus/GSFC-MODIS and Geospatial Interoperability and Earth-Sun Gateway



3:00 P.M. Break

3:30 P.M. MODIS Use in Models Presentations

—M. Halem/NASA-GSFC (Emiritus)—Chairperson



-Arlinda da Silva/GSFC-GMAO--Cloud Studies

-Watson Gregg/GSFC-GMAO--Ocean Biology Studies

-R. Nemani/ARC—Land Processes Studies



5:30 P.M. Adjourn for Evening Activities

6:30 P.M. MCST Calibration Workshop—J. Xiong, et al.





# AGENDA (CONTINUED)



## March 23

**8:00 A.M. Climate-Quality Data Sets Presentations**

**—P. Bontempi/NASA HQ—Chairperson**

**-Nazmi Saleous/SAIC—REASON CAN Progress**

**-Chuck McClain/NASA-GSFC—Progress/Status ocean color data sets**

**-Paul Menzel/ NOAA-Univ. of Wisconsin—Atmospheric data sets**

**-Lucia Tsaoussi/NASA HQ –Climate Quality Data-Records—Policy, Programmatic Thrusts, etc.**



**10:00 A.M. Break**

**10:30 A.M. Combined instrument data/Data fusion presentations**

**—V. Salomonson/NASA/GSFC—Chairperson**



**-D. Diner/JPL—MISR/MODIS etc. data analyses**

**-N. Loeb/LaRC—CERES/MODIS/MISR data analyses**

**-M. Goldberg/NOAA/NESDIS/ORA –AIRS/MODIS data analyses**

**-S. Hook/JPL--ASTER/MODIS data analyses**



**12:30 – 1:30 P.M. Lunch**

**1:30 – 5:00 P.M. Discipline Group Meetings**

**(Discipline issues, goals and objectives, summary of achievements, plans for the future)**





# AGENDA (CONTINUED)



## March 24

8:00 A.M. – 12:00 P.M. Discipline Group meetings (continued)

Lunch 12:00 P.M.—1:00 P.M. Lunch

1:00 – 3:00 P.M. Closing Summaries



### -Discipline Summaries

- Atmospheres/ M. King (30 minutes)
- Land/C. Justice (30 minutes)
- Oceans/McClain (30 minute)



- Headquarters Summary/Impressions/Guidance  
--P. Bontempi, et al.



- Closing Remarks/Plans for future/next meeting/V. Salomonson

